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(54) System for optimized brain stimulation

(57) There is provided apparatus for testing to optimally place a deep brain lead 40, particularly for stimulating the GPi or other deep brain target to treat neurological disorders such as Parkinson's Disease and the like. The invention embraces determining the location of a feedback target such as the motor cortex, the location of the deep brain target, and inserting a test lead along a substantially linear trajectory so as to be able to stimulate both concurrently. The test lead has an electrode 46 at about its distal end for stimulation of the deep brain target, and an electrode 44 adjustably positioned 3-8 cm proximal for stimulation of the motor cortex. When stimulation is applied concurrently through both electrode, the affected body portion, e. g. limb, can be made to move when and if the deep brain electrode is optimally positioned. The position can be checked during surgical implant of the system, and the lead position adjusted for the permanently implanted lead can be determined

during the surgical procedure.

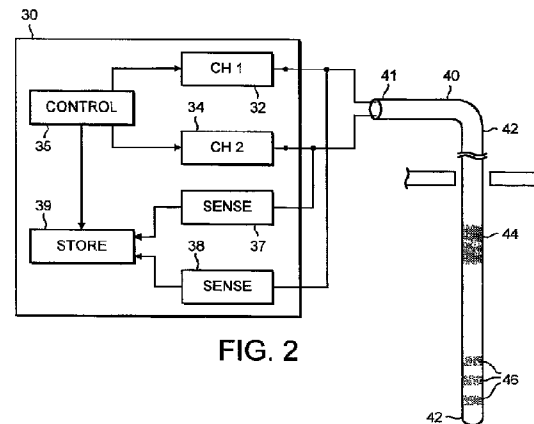


FIG. 2

EP 0 998 958 A3



European Patent
Office

EUROPEAN SEARCH REPORT

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EP 99 12 0925

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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 8 November 2000	Examiner FERRIGNO, A
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 03/82 (Fol. C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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